MEMORANDUM

February 14, 2007

TO: Administrative Record for "Methods" Package

FROM: Lisa McGuire, WQS Coordinator

SUBJECT: ESA and EFH Consultation on Alaska's "Methods" Package

This memo addresses EPA's determination that EPA's approval of the revision to 18 AAC 70.030 will have ***no effect*** on listed or candidate species under the Endangered Species Act (ESA; 16 U.S.C., Section 1536(a)) or essential fish habitat under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267).

The specific changes submitted by Alaska are shown in abbreviated form in Appendix A. EPA is not acting on Revisions 1-9 and 11-13 shown in Appendix A because those revisions are not water quality standards requiring EPA review and approval under Section 303(c) of the CWA and its implementing regulations. Those revisions are either editorial and non-substantive or do not establish an ambient condition or level of protection by specifying a magnitude, duration, or frequency of water quality criteria exceedance. EPA's determinations are explained in detail in the Technical Justification for the methods package ("Technical Justification, Analytical Methods Revision to Alaska Water Quality Standards") in the administrative record for this action.

Revision 10 adds a technical reference and citation information to 18 AAC 70.030, which establishes a whole effluent toxicity (WET) limit. This revision is subject to EPA review and approval. This revision meets the requirements of 40 C.F.R. 131 and EPA approves this revision. Revision 10 is shown in Appendix B of this memorandum.

Consultation

Section 7(a) of the Endangered Species Act (ESA; 16 U.S.C., Section 1536(a)) requires that federal agencies, in consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS), ensure that their actions are not likely to jeopardize the continued existence of federally listed species or result in the adverse modification of designated critical habitat of such species. The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the

Sustainable Fisheries Act of 1996 (Public Law 104-267), requires federal agencies to consult with the National Marine Fisheries Services (NMFS) on activities that may adversely affect essential fish habitat (EFH).

Since EPA is not taking action on Revisions 1-9 and 11-13, there is no federal action requiring consultation under either ESA or MSA.

EPA is approving Revision 10. EPA has determined that consultation is not required on this action. 18 AAC 70.030 establishes a limit for whole effluent toxicity. The provision establishes that effluents may not impart chronic toxicity to aquatic organisms, expressed as 1.0 chronic toxic units; and if the department determines that an effluent has reasonable potential to cause or contribute to exceedance of the WET limit, WET testing will be required as a condition of the permit, approval, or certification. This action does not change the specified level of protection of 1.0 chronic toxic units.

Furthermore, since the 1990s, EPA Regions 9 and 10 have implemented WET in permits with the use of EPA's 1995 west coast marine methods manual and support west coast states in the inclusion of these methods in their water quality standards. Alaska's WET requirement at 18 AAC 70.030, even prior to the changes indicated above that EPA is acting on in this action, accommodates this approach in that it allows for the use of "alternate methods and species approved by the department that provide equivalent estimates of chronic toxicity." The revision is to explicitly call out, and incorporate by reference, the west coast marine methods manual, while still retaining the language providing flexibility to use "alternate methods and species approved by the department that provide equivalent estimates of chronic toxicity."

Because the level of protection (1.0 chronic toxic units) is not being changed, and because the revision as described in the previous paragraph updates technical methods citations to include methods more suitable to west coast environments, but is not expected to affect the practice and implementation of WET in Alaska, EPA believes that this action will have no effect on listed species or essential fish habitat.

During early exchanges with USFWS and NMFS staff regarding the State's proposed revisions, the Services' staff indicated that it would not be necessary to consult on the State's package of proposed revisions (see e-mail from Lawrence Peltz, NMFS, dated 6/8/05, to Lisa McGuire, EPA; and e-mail from Philip Johnson, USFWS, 6/27/05, to Lisa McGuire). EPA concludes that this action will have no effect.

Appendix A

Table 1. Revisions[1] to 18 AAC 70.020, 18 AAC 70.030, and 18 AAC 70.990 as submitted by letter dated August 14, 2006 to EPA.

	Revision
1	18 AAC 70.020(b), note 1, is amended to read: 1. Wherever criteria for fecal coliform bacteria are provided in this section, fecal coliform bacteria **enumeration** must be determined by the membrane filter technique or most probable number procedure according to **any edition of** *Standard Methods for the Examination of Water and Wastewater*, **adopted by reference** [18TH EDITION, 1992, AS DESCRIBED] in (c)(1) of this section [AND ADOPTED BY REFERENCE], or in accordance with other standards approved by the department and the United States Environmental Protection Agency (EPA).
2	18 AAC 70.020(b), note 7, is amended to read: 7. Samples to determine concentrations of total aromatic hydrocarbons (TAH)…the EPA methods referred to in this note may be found in **Appendix A of** 40 C.F.R. 136, [APPENDIX A,] as revised as of July 1, **2003** [2002] and adopted by reference.
3	18 AAC 70.020(b), note 8, is amended to read: 8. Color is as measured in color units on the platinum-cobalt scale according to **any edition of** *Standard Methods for the Examination of Water and Wastewater*, **adopted by reference** [18TH EDITION, 1992 AS DESCRIBED] in (c)(1) of this section [AND ADOPTED BY REFERENCE].
4	The lead-in language of 18 AAC 70.020(c) is amended to read: (c) Water quality **must** [WILL] be analyzed according to…
5	18 AAC 70.020(c)(1) is amended to read: (1) *Standard Methods for the Examination of Water and Wastewater*, 18th **edition** [EDITION], 1992, **19th edition, 1995, or 20th edition, 1998,** published jointly by the …and the Water Environment Federation**; the editions of *Standard Methods for the Examination of Water and Wastewater* listed in this paragraph are adopted by reference, except that analytical methods 3111B, 3111D, 3112B, 3113B, and 3114B in the 20th edition are not adopted by reference and are not approved** [(PUBLICATION OFFICE: AMERICAN PUBLIC HEALTH ASSOCATION, 1015 15TH STREET NW, WASHINGTON, D.C. 20005)];
6	18 AAC 70.020(c)(2) is amended to read: (2) *Methods for Chemical Analysis of Water and Wastes*, **March 1983** [MARCH 1979, TECHNICAL REPORT NO. EPA 600-4-79-020], Environmental…Agency, **Technical Report No. EPA-600/4-79-020, adopted by reference** [CINCINNATI, OHIO…ORDER NO. PB 297686)];
7	18 AAC 70.020(c)(3) is amended to read: (3) **EPA's *Guidelines Establishing Test Procedures…* adopted by reference** [GUIDELINES ESTABLISHING TEST PROCEDURES…VOL. 49, NO. 209];
8	18 AAC 70.020(c)(4) is repealed: (4) repealed **6/13/2006**;
9	18 AAC 70.020(c)(5) is amended to read:

	Revision
	(5) *Methods for Organic Chemical Analysis.*…July 1982 [TECHNICAL REPORT NO. EPA 600 14-82-057], Environmental Monitoring and Support Laboratory, **Office of Research and Development…adopted by reference** [CINCINNATI, OH 45268]; (Eff. 11/1/97…am **6/13/2006**, Register **178**)….**Editor's note:** Federally-promulgated…Washington, D.C. **Information on purchasing *Standard Methods for the Examination of Water and Wastewater*, adopted…http//nepis.epa.gov**….
10	The lead-in language of 18 AAC 70.030(a) is amended to read: **18 AAC 70.030. Whole effluent toxicity limit.** (a) An effluent...The permittee shall use methods and species approved by the United States Environmental Protection Agency in *Short-term Methods…Organisms*, **4th edition (2002), Technical Report No. EPA-821-R-02-013, adopted by reference, and** [(2D ED. 1989) (OFFICE OF RESEARCH AND DEVELOPMENT…EPA-600/4-89/001),] *Short-term Methods…to* ***West Coast*** *Marine and Estuarine Organisms*, **1st edition (August 1995), Technical Report…adopted by reference** [(1988) (OFFICE…REVISION 1)], or alternate…(Eff. 11/1/97…am **6/13/2006**, Register **178**)…**Editor's note: *Short-term Methods*...Internet address: http//nepis.epa.gov.**
11	18 AAC 70.990(34) is amended to read: (34) "mean" means…for fecal coliform analysis, is computed as a **geometric mean** [LOGARITHM];
12	18 AAC 70.990(52) is amended to read: (52) "settleable solids" means…in method 2540(F), **in any edition of** *Standard Methods*…**adopted by reference in 18 AAC 70.020(c)(1)** [18TH EDITION (1992)];
13	18 AAC 70.990(70) is amended to read: (70) "milliequivalents per **liter** [LITTER]" or "meq/l" mean milligrams per liter divided by the molecular weight of **a chemical species, and multiplied by the electrical charge or valence of the species** [THE CHEMICAL COMPOUND]; (Eff 11/1/97…am **6/13/2006**, Register **178**) **Authority:** AS 46.03.010…[AS 46.03.090]…

[1] Unchanged regulatory text is shown as text without bold underline format; regulatory text being added with this revision is shown as **bold underlined** text, and regulatory text being removed with this revision is shown as [CAPITAL BRACKETED] text. Effort has been made to ensure the revisions in this table are indicated accurately but this table is an abbreviated, not an exact, transcription of the State's submittal and the State's official submittal package must be used if an exact transcript of the revisions is needed.

Appendix B

The substantive changes to 18 AAC 70.030 are shown in full below. In addition to the changes shown below, the State also added information to 18 AAC 70.030 on where the public may obtain the technical references cited in 18 AAC 70.030; that additional information on obtaining copies is not reproduced below because it is non-substantive. Please note: unchanged regulatory text is shown as text without bold underline format; regulatory text being added with this revision is shown as **bold underlined** text, and regulatory text being removed with this revision is shown as [CAPITAL BRACKETED] text. Effort has been made to ensure the revisions are shown accurately below but the State's official submittal package must be used if an exact transcript of the revisions is needed.

18 AAC 70.030. Whole effluent toxicity limit. (a) An effluent discharged to a water may not impart chronic toxicity to aquatic organisms, expressed as 1.0 chronic toxic unit, at the point of discharge, or if the department authorizes a mixing zone in a permit, approval, or certification, at or beyond the mixing zone boundary, based on the minimum effluent dilution achieved in the mixing zone. If the department determines that an effluent has reasonable potential to cause or contribute to exceedance of the whole effluent toxicity limit, the department will require whole effluent toxicity testing as a condition of a permit, approval, or certification. The permittee shall use methods and species approved by the United States Environmental Protection Agency in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms***, 4th edition (2002), Technical Report No. EPA-821-R-02-013, adopted by reference, and** [(2D ED. 1989)(OFFICE OF RESEARCH AND DEVELOPMENT, CINCINNATI, OH EPA-600/4-89/001),] *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to* ***West Coast*** *Marine and Estuarine Organisms***, 1st edition (August 1995), Technical Report No. EPA/600/R-95/136, adopted by reference** [(1988) (OFFICE OF RESEARCH AND DEVELOPMENT, CINCINNATI, OH, EPA-600/4-87/028), AND *SUPPLEMENT TO "SHORT-TERM METHODS FOR ESTIMATING THE CHRONIC TOXICITY OF EFFLUENTS AND SURFACE WATERS TO FRESHWATER ORGANISMS*" (SEPTEMBER 1989) (OFFICE OF RESEARCH AND DEVELOPMENT, CINCINNATI, OH, EPA-600/4-89/001a, REVISION 1)], or alternate methods and species approved by the department that provide equivalent estimates of chronic toxicity. The department will require that the testing use sensitive and biologically important life stages of indigenous species, as the department considers necessary and feasible to protect aquatic life fully. The department will reduce the frequency of, or eliminate, whole effluent toxicity testing if

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